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| 10/070,810      | 03/11/2002  | Helen Elaine Penelope Fernley | 7443-2              | 9570             |

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EXAMINER

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| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2161

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/070,810

Applicant(s)

FERNLEY ET AL.

Examiner

Patrick J Santos

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☒ Claim(s) 15 and 28-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is not descriptive. Specifically, the title, "Document Retrieval System" does not adequately distinguish the pending application from other database query systems, document management systems, read-only file systems, and the like. A new title is required that is clearly indicative of the invention to which the claims are directed. Examiner suggests that describing the keyword position in query feature of the application in the title would overcome this objection. The following title is suggested, "System and Method to Retrieve Documents Incorporating Weighting Keywords By Position In Query."

### ***Claim Objections***

2. Claim 15 is objected to because of the following informality: the phrase "according to any of claims 12" (Pre-Amendment A: p. 9, ln. 1) should read "according to claim 12".  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 29 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP

§ 2172.01. The omitted steps are in how to determine whether a sentence is “similar” or not (Claim 29, first line, “wherein similar sentences contained in a document are grouped together”).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 6-10, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,404,514 issued to Kagenneck et al. (hereafter Kagenneck ‘514).

Claim 1:

Regarding Claim 1, Kagenneck ‘514 discloses: a document retrieval system comprising a user interface and processing means (Kagenneck ‘514: col. 1, lns. 35-45), wherein the user interface is configured to allow a user to enter a query phrase indicative of a subject of interest (Kagenneck ‘514: col. 7, lns. 10-13), and the processing means is operative to select query keywords from the query phrase (Kagenneck ‘514: col. 7, lns. 13-15) and allocate positional weightings to the query keywords (Kagenneck ‘514: col. 7, lns. 15-18) dependent upon the relative positions of the query keywords within the query phrase (Kagenneck ‘514: col. 7, lns. 16-20).

Note that the user modifies the initial list of keywords and the program based on polysemantic weight changes the positions of the keywords in the list (Kagenneck ‘514: col. 7,

Ins. 10-20). The final list of keywords reads on a query phrase. Since the user has the ability to modify the keyword choices in the keyword list prior to document retrieval (Kageneck '514: col. 9, Ins. 15-18) and is cognizant of the polysemantic weight changes and keyword position changes (Kageneck '514: col. 9, Ins. 16-20), this reads on the user entering a query phrase in which the relative positions of the query keywords correspond to weightings.

Claims 6 and 10:

Regarding Claims 6 and 10, Kageneck '514 discloses all the limitations of Claim 1 (supra). Regarding Claim 10, Examiner acknowledges that Claim recites dependence on any of Claims 1-9. Additionally, Kageneck '514 discloses:

- (Claim 6) wherein the system is arranged to compare the query phrase with a set of document signature phrases, each document signature phrase being indicative of the contents of a document (Kageneck '514: col. 9, Ins. 15-25).
- (Claim 10) wherein in addition to the positional weighting given to query keywords, the query keywords are given relevance weightings dependent upon the perceived relevance of the query keywords to the subject of interest (Kageneck '514: col. 7, Ins. 16-18 – Note that polysemantic weighting is a relevance weighting).

Claim 7:

Regarding Claim 7, Kageneck '514 discloses all the limitations of Claim 6 (supra). Additionally, Kageneck '514 discloses: wherein each document signature phrase comprises document keywords having positional weightings dependent upon their relative positions within the document signature phrase (Kageneck '514: col. 1, ln. 65 to col. 2, ln. 28 – note the ranked list of terms used to index the documents reads on a document signature phrase).

Claim 8:

Regarding Claim 8, Kageneck '514 discloses all the limitations of Claim 7 (supra). Additionally, Kageneck '514 discloses: wherein comparison of the query phrase and the document signature phrase comprises multiplying the positional weighting of each query keyword by the positional weighting of a corresponding document keyword (Kageneck '514: col. 2, lns. 29-34; col. 9, lns. 18-40).

Claim 9:

Regarding Claim 9, Kageneck '514 discloses all the limitations of Claim 8 (supra). Additionally, Kageneck '514 discloses: wherein the results of the multiplication are added together to provide a sum that is a measure of the relevance of the document represented by the document signature phrase (Kageneck '514: col. 9, lns. 18-40).

Claim 24:

Regarding Claim 24, Kageneck '514 discloses: a method of summarising the content of a document, the method comprising segmenting the document into sentences, selecting document keywords from the sentences (Kageneck '514: col. 1, ln. 65 to col. 2, ln. 28), and allocating positional weightings to the document keywords dependant upon the relative positions of the document keywords within the sentence (Kageneck '514: col. 7, lns. 10-20).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kagenack '514 in view of information taken under Official Notice.

Claim 2:

Regarding Claim 2, Kagenack '514 discloses all the limitations of Claim 1 (supra). Additionally, Kagenack '514 discloses: wherein the positional weighting applied to query keywords increases progressively from a high weighting at the beginning of the query phrase to a lower weighting at the end of the query phrase (Kagenack '514: Ins. 15-20; Fig. 3). However, Kagenack '514 does not explicitly disclose that the weighting is ordered from a low weighting at the beginning of the query phrase to a higher weighting at the end of the query phrase.

Examiner takes Official Notice that it is notoriously well-known in the art in an ordered list is either from high to low or from low to high.

It would have been obvious to a person having ordinary skill in the art to reverse the order of the list of keywords of Kagenack '514 from high to low to a low to high order instead, since the algorithm merely relies on having a monotonic order imposed upon the keywords by weight. Refer to MPEP 2144.04 VI, "Reversal, Duplication, or Re-arrangement of Parts" and further refer to *In re Gazda*, 219 F.2d 449, 104 USPQ 400 (CCPA 1955).

Claim 25:

Regarding Claim 25, Kagenack '514 discloses all the limitations of Claim 24 (supra). Additionally, Kagenack '514 discloses: wherein the positional weighting applied to query keywords increases progressively from a high weighting at the beginning of the query phrase to a lower weighting at the end of the query phrase (Kagenack '514: Ins. 15-20; Fig. 3). However,

Kageneck '514 does not explicitly disclose that the weighting is ordered from a low weighting at the beginning of the query phrase to a higher weighting at the end of the query phrase.

Examiner takes Official Notice that it is notoriously well-known in the art in an ordered list is either from high to low or from low to high.

It would have been obvious to a person having ordinary skill in the art to reverse the order of the list of keywords of Kageneck '514 from high to low to a low to high order instead on the same basis as Claim 2 (supra).

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kageneck '514 in view of the publication, "A Formula for Incorporating Weights into Scoring Rules" by Fagin et al., as published in the 1997 International Conference on Database Theory (hereafter Fagin '97).

Claim 4:

Regarding Claim 4, Kageneck '514 discloses all the limitations of Claim 1 (supra). However, Kageneck '514 does not explicitly disclose: wherein the positional weightings applied to the query keywords are scaled.

Fagin '97 discloses scaling of weights (Fagin '97: pp. 17-18, Section 8, "Totally Linear Rules", p. 6, ln. 19 to p. 7. ln. 30, discussion regarding "local linearity").

It would have been obvious to a person having ordinary skill in the art to apply the linear weighting of Fagin '97 to the positional weights of Kageneck '97. The motivation to combine is suggested by Fagin '97, which discloses that linear weighting provides the advantage of allowing intermediate value weightings to be interpolated (Fagin '97: p. 6, lns. 26-35).



10. Claims 3 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kageneck '514 and information taken under Official Notice in view of Fagin '97.

Claim 3:

Regarding Claim 3, Kageneck '514 and information taken under Official Notice in combination disclose all the limitations of Claim 2 (supra). However, Kageneck '514 and information taken under Official Notice do not explicitly disclose: wherein the positional weighting increases in a substantially linear manner.

Fagin '97 discloses a formula for incorporating weights into scoring. Specifically, Fagin '514 discloses a means to increase weights in a substantially linear manner (Fagin '97: pp. 17-18, Section 8, "Totally Linear Rules", p. 6, ln. 19 to p. 7. ln. 30, discussion regarding "local linearity").

It would have been obvious to a person having ordinary skill in the art to apply the linear weighting of Fagin '97 to the positional weights of Kageneck '97 and information taken under Official Notice in combination. The motivation to combine is suggested by Fagin '97, which discloses that linear weighting provides the advantage of allowing intermediate value weightings to be interpolated (Fagin '97: p. 6, lns. 26-35).

Claim 26:

Regarding Claim 26, Kageneck '514 discloses all the limitations of Claim 25 (supra). However, Kageneck '514 and information taken under Official Notice do not explicitly disclose: wherein the positional weighting increases in a substantially linear manner.

Fagin '97 discloses a formula for incorporating weights into scoring. Specifically, Fagin '514 discloses a means to increase weights in a substantially linear manner (Fagin '97: pp. 17-

18, Section 8, "Totally Linear Rules", p. 6, ln. 19 to p. 7. ln. 30, discussion regarding "local linearity").

It would have been obvious to a person having ordinary skill in the art to apply the linear weighting of Fagin '97 to the positional weights of Kagenneck '97 and information taken under Official Notice in combination. The motivation to combine is on the same basis as Claim 3 (supra).

Claim 27:

Regarding Claim 27, Kagenneck '514, information taken under Official Notice, and Fagin '97 disclose all the limitations of Claim 26 (supra). Additionally, Kagenneck '514, information taken under Official Notice, and Fagin '97 disclose: wherein the positional weightings applied to document keywords are scaled (Fagin '97: pp. 17-18, Section 8, "Totally Linear Rules", p. 6, ln. 19 to p. 7. ln. 30, discussion regarding "local linearity" which reads on scaling).

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kagenneck '514 and Fagin '97 in view of the publication, "A First Course in Probability" by Ross, published 1988, (hereafter Ross '88).

Claim 5:

Regarding Claim 5, Kagenneck '514 and Fagin '97 in combination disclose all the limitations of Claim 4 (supra). However, Kagenneck '514 and Fagin '97 do not explicitly disclose: wherein the scaling is such that the maximum query keyword positional weighting is one.

Ross '88 discloses that the definition of a statistical weight is such that the integral of all statistical weights is one, and therefore the maximal statistical weight is one (Ross '88: p. 29, Axioms 1 and 2).

It would have been obvious to a person having ordinary skill in the art to apply the statistical maximal weighting of one Ross '88 to the Kagenack '514 and Fagin '97 combination, since the Kagenack '514 and Fagin '97 weights are statistical weights.

12. Claims 11-15 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kagenack '514 in view of U.S. Patent No. 6,134,532 issued to Lazarus et al. (hereafter Lazarus '532).

Claims 11-15 and 19:

Regarding Claims 11-15 and 19, Kagenack '514 discloses all the limitations of Claim 1 (supra). Additionally, Kagenack '514 discloses:

- (Claim 11) interest keywords having positional weightings dependent upon the relative positions of the interest keywords within the interest phrase (Kagenack '514: col. 7, lns. 10-20).
- (Claim 19) documents are retrieved by the system are selected by the user on the basis of their perceived relevance, and document keywords representative of the selected documents (Kagenack '514: col. 7, lns. 15-20; Fig. 3).

However, Kagenack '514 does not explicitly disclose:

- (Claim 11) wherein a subject of interest to the user is represented within the processing means as an interest phrase.

- (Claim 19) updating an interest phrase indicative of an interest of the user.

Lazarus '532 discloses query vectors where a value in a vector may be an interest phrase.

Specifically Lazarus '532 discloses:

- (Claim 11) wherein a subject of interest to the user is represented within the processing means as an interest phrase (Lazarus '532: col. 8, lns. 26-31; col. 11, lns. 42-54 – note the phrases in the phrase list file relate to values to be compared in query thus read on interest phrases).
- (Claim 19) updating an interest phrase indicative of an interest of the user (Lazarus '532: col. 8, lns. 39-44 – note the phrases in the phrase list file relate to values to be compared in query thus read on interest phrases).

It would have been obvious to a person having ordinary skill in the art to apply the interest phrase of Lazarus '532 to the document retrieval system of Kogeneck '514. The motivation to combine is suggested by Lazarus '532 which discloses that use of interest phrases in a query system such as Kogeneck '514 improves system performance upon query. (Lazarus '532: col. 11, lns. 52-55).

Claim 12:

Regarding Claim 12, Kogeneck '514 and Lazarus '532 in combination disclose all the limitations of Claim 11 (supra). Additionally, Kogeneck '514 and Lazarus '532 in combination disclose: wherein when the user enters a query phrase, the processing means is arranged to locate an existing interest phrase that satisfies a predetermined degree of correspondence between the query keywords and the interest keywords (Lazarus '532: col. 17, ln. 59 to col. 18, ln. 14 – note that the vectors contain both keywords and phrases).

Claims 13-15:

Regarding Claims 13-15, Kagenack '514 and Lazarus '532 in combination disclose all the limitations of Claim 12 (supra). Additionally, Kagenack '514 and Lazarus '532 in combination disclose:

- (Claim 13) wherein the user interface allows the user to select words from the returned interest phrase, and add them to the query phrase (Kagenack '514: col. 8, ln. 41 to col. 9, ln. 17 – note that as combined with the interest phrases of Lazarus '532, the SWAPS terms of Kagenack '514 include interest phrases).
- (Claim 14) wherein if more than one interest phrase is returned, the phrases are ordered for the user's review in accordance with the degree of correspondence between the query phrase and the interest phrases (Kagenack '514: col. 7, lns. 20-33 – note that as combined with the interest phrases of Lazarus '532, the SWAPS terms of Kagenack '514 include interest phrases).
- (Claim 15) wherein the existing interest phrases include interest phrases representative of subjects of interest to other users (Lazarus '532: col. 8, lns. 26-31; col. 11, lns. 42-54 – note the interest phrases of Lazarus '532 are based on phrases expected to be of interest to multiple users).

Claims 20-22:

Regarding Claims 20-22, Kagenack '514 and Lazarus '532 in combination disclose all the limitations of Claim 19 (supra). Additionally, Kagenack '514 and Lazarus '532 in combination disclose:

- (Claim 20) wherein the interest phrase is updated by adjusting relevance weightings allocated to interest keywords of the interest phrase (Kageneck '514: col. 7, lns. 10-20).
- (Claim 21) wherein the interest phrase is updated by adding keywords to the interest phrase (Lazarus '532: col. 8, lns. 27-44 – note interest phrases may be updated by adding the a modified interest phrase into the phrase list file of Lazarus '532).
- (Claim 22) wherein the document keywords are used to create a new interest phrase if they are determined not to be relevant to existing interest phrases (Lazarus '532: col. 8, lns. 27-44 – note interest phrases may be updated by adding the a modified interest phrase into the phrase list file of Lazarus '532).

13. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kageneck '514 and Lazarus '532 in view of U.S. Patent No. 6,185,553 issued to Byrd et al. hereafter Byrd '553.

Claim 16:

Regarding Claim 16, Kageneck '514 and Lazarus '532 in combination disclose all the limitations of Claim 12 (supra). However, Kageneck '514 and Lazarus '532 in combination do not explicitly disclose: wherein when the system is not being used by a given user, the system augments that user's interest phrases by comparing an interest phrase of the given user with interest phrases of other users, and if an interest phrase of another user is sufficiently similar, providing a copy of that interest phrase for the given user.

Byrd '553 discloses a cooperative text search facility. Specifically, Byrd '553 discloses:

wherein when the system is not being used by a given user, the system augments that user's interest phrases by comparing an interest phrase of the given user with interest phrases of other users, and if an interest phrase of another user is sufficiently similar, providing a copy of that interest phrase for the given user (Byrd '553: col. 5, lns. 62-67).

It would have been obvious to a person having ordinary skill in the art to apply the cooperative search facility of Byrd '553 to the Kageneck '514 and Lazarus '532 combination. The motivation to combine is suggested by Byrd '553 which discloses the particular advantages of a query system such as that of Kageneck '514 being expanded to provide for cooperative queries with multiple users (Byrd '553: col. 3, lns. 2-20).

Claims 17-18:

Regarding Claims 17-18, Kageneck '514, Lazarus '532, and Byrd '533 in combination disclose all the limitations of Claim 16 (supra). Kageneck '514, Lazarus '532, and Byrd '533 in combination disclose:

- (Claim 17) wherein contact information regarding the other user is copied to the given user (Byrd '553: col. 8, lns. 30-33 – note the identifiers are required, otherwise a cooperative connection could not be made).
- (Claim 18) wherein links to documents found by the other user are provided for the given user (Byrd '553: col. 5, lns. 36-41).

14. Claim 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kageneck '514 and Lazarus '532 in view of U.S. Patent No. 5,701,461 issued to Dalal et al. (hereafter Dalal '461).

Claim 23:

Regarding Claim 23, Kageneck '514 and Lazarus '532 in combination disclose all the limitations of Claim 22 (supra). However, Kageneck '514 and Lazarus '532 in combination do not explicitly disclose: wherein the user is requested by the user interface to provide a name for the new interest phrase.

Dalal '461 discloses aliasing. Specifically, Dalal '461 discloses: wherein the user is requested by the user interface to provide a name for the new interest phrase (Dalal '461: col. 9, lns. 23-25).

It would have been obvious to a person having ordinary skill in the art to apply the aliasing of Dalal '461 to the interest phrases of the Kageneck '514 and Lazarus '532. The motivation to combine is suggested by Dalal '461 which discloses that aliasing can allow an item to be used as the basis for other queries (Dalal '461: col. 9, lns. 26-27).

***Allowable Subject Matter***

15. Claim 28 is objected to as being dependent upon rejected base Claim 24, but would be allowable if rewritten in independent form including all of the limitations of base Claim 24 and any intervening claims.

Claim 28 distinguishes itself from prior art in that in addition to the limitations recited in Claim 24 it recites: wherein where a document keyword occurs more than once in a sentence, the positional weighting is determined on the basis of an average location of the document keyword within the sentence. Prior art either eliminates redundant keywords, or simply treats redundant keywords independently, as opposed to calculating an average location.



16. Claim 29 is objected to as being dependent upon rejected base Claim 24. Additionally, Claim 29 has been rejected under 35 U.S.C. 112, 2nd paragraph (*supra*). Claim 29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action, to include all of the limitations of the base claim and any intervening claims, and additionally if rewritten in independent form including all of the limitations of base Claim 24 and any intervening claims.

Claim 29 distinguishes itself from prior art in that in addition to the limitations recited in Claim 24 it recites: wherein similar sentences are grouped together, and the largest group is taken to be an indication of the average content of the document. Prior art discloses similar sentences being grouped together, but not that the size of the largest group is taken to be an indication of the average content of the document.

17. Claim 30 is objected to as being dependent upon rejected base Claim 24, but would be allowable if rewritten in independent form including all of the limitations of base Claim 24 and any intervening claims, and furthermore if the 35 U.S.C. 112, 2<sup>nd</sup> paragraph on parent Claim 29 could be overcome.

Claim 30 distinguishes itself from prior art on the same basis as parent Claim 29 (*supra*).

18. Claim 31 is objected to as being dependent upon rejected base Claim 26, but would be allowable if rewritten in independent form including all of the limitations of base Claim 26 and any intervening claims.

Claim 31 distinguishes itself from prior art in that in addition to the limitations recited in Claim 26 it recites: wherein each document keyword within the document signature phrase is given a relevance weighting dependent upon the number of times it occurs in the group of sentences. Prior art discloses the assignment of relevance weighting of keywords. However, prior art does not specifically disclose that the weighting is dependent upon the number of times it occurs in the group of sentences.

19. Claim 32 is objected to as being dependent upon rejected base Claim 26, but would be allowable if rewritten in independent form including all of the limitations of base Claim 26.

Claim 32 distinguishes itself from prior art on the same basis as parent Claim 31 (*supra*).

### ***Conclusion***

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Fagin, Ronald; Yoelle S. Maarek, "Allowing Users to Weight Search Terms," April 12-14, 2000, Proceedings of RIAO '2000, Paris, France, pages 665-681. Reference is a followup to Fagin '97 above. Reference goes into greater detail on how to modify search weights.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Santos whose telephone number is 571-272-4028. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J.D. Santos  
March 14, 2004

  
**FRANTZ COBY**  
**PRIMARY EXAMINER**